

R E M A R K S

Applicant hereby adds new claims 29-36 in order to further define the invention for which protection is sought. Claim 29 is directed to a microfluidic device that provides a visual display in response to a change in a predetermined parameter of the fluid flowing therethrough. The microfluidic device includes a body defining a channel for accommodating the flow of fluid therethrough. A monitor structure is retained in the channel of the body at a user-desired position within the flow of fluid. The monitor structure has a color. An immobilized dye is entrapped within the monitor structure. The dye changes the color of the monitor structure in response to a change in the predetermined parameter of the fluid. As hereinafter described, nothing in the cited references shows or suggests providing a monitor structure within a channel of a microfluidic device wherein the monitor structure includes an immobilized dye entrapped therein or a microfluidic device wherein an immobilized dye entrapped within a monitor structure changes the color of the monitor structure in response to a change in the predetermined parameter of a fluid flowing therepast.

In the parent application, the Examiner cited Beebe et al, U.S. Patent No. 6,488,872. The Beebe '872 patent is directed to a method of fabricating a microfluidic device. The Examiner has suggested that Column 34, lines 32-42 of the Beebe '872 patent teaches a change in optical properties in response to detection in changes in Ph. However, it is noted that the structure described in the Beebe '872 patent refers to a hydrogel sensor that expands in response to a stimulus so as to prevent a dye from flowing therepast. In the absence of the stimulus, the hydrogel is in a contracted state allowing the dye to flow therepast. In such a manner, the hydrogel acts as a sensor and does provide a change in the optical properties of the microfluidic device. However, nothing in the Beebe '872 patent shows or suggests entrapping an

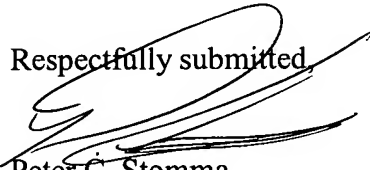
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Inventors: David J. Beebe et al.
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immobilized dye within the monitor structure such that the dye changes the color of the monitor structure in response to a change in the predetermined parameter of the fluid flowing therepast. There is no suggestion or teaching of such a structure in the '872 patent. Hence, it is believed that new claim 29 defines over the cited reference and is in proper form for allowance.

Claims 30-36 depend either directly or indirectly from independent claim 29 and further define a microfluidic device not shown or suggested in the prior art. It is believed that claims 30-36 are allowable as depending from an allowable base claim and in view of the subject matter of each claim.

Applicant believes that the present application with claims 1-7 and 9-36 is in proper form for allowance and such action is earnestly solicited. A check in the amount of \$116.00 is enclosed for eight (8) additional claims and one (1) additional independent claim. The Director is hereby authorized to charge payment of any other fees associated with this communication or credit any overpayment to Deposit Account No. 50-1170.

Respectfully submitted,


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